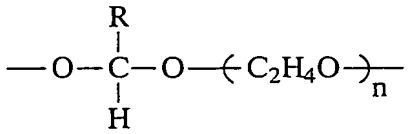
CLAIMS

1. A chemically amplified positive-working photosensitive resin composition, comprising (A) an alkali soluble novolak resin, (B) an alkali soluble acrylic resin, (C) an acetal compound, and (D) an acid generator.

2. The chemically amplified positive-working photosensitive resin composition according to claim 1, wherein the acrylic resin contains a structural unit derived from (meta)acrylic acid and a structural unit derived from alkyl methacrylate as well as a structural unit derived from styrene as needed.

3. The chemically amplified positive-working photosensitive resin composition according to claim 1, wherein the acrylic resin contains a structural unit derived from hydroxyalkyl methacrylate and a structural unit derived from alkyl methacrylate as well as a structural unit derived from styrene as needed.

4. The chemically amplified positive-working photosensitive resin composition according to any one of Claims 1 to 3, wherein the acetal compound has a structural unit represented by the following general formula (I):



----- (I)

wherein R represents a saturated alkyl group having 1 to 20 carbon=atoms; and n is an integer of 1 to 10.

5. The chemically amplified positive-working photosensitive resin composition according to any one of Claims 1 to 4, wherein the weight ratio of the components (A):(B):(C):(D) is 100 : (2 to 200) : (1 to 50) : (0.05 to 10).

6. The chemically amplified positive-working photosensitive resin composition according to any one of Claims 1 to 5, wherein the chemically amplified positive-working photosensitive resin is used for producing a film of 5 μm or more in thickness.

7. The chemically amplified positive-working photosensitive resin composition according to any one of Claims 1 to 6, wherein the chemically amplified positive-working photosensitive resin composition is used in a cyan or non-cyan electrolytic gold-plating step in the gold bump-forming process of the semiconductor packaging technology.

8. The chemically amplified positive-working photosensitive resin composition according to any one of Claims 1 to 6, wherein the chemically amplified positive-working photosensitive resin composition is used in a copper-, nickel-, or solder-plating step.

9. The chemically amplified positive-working photosensitive resin composition according to any one of Claims 1 to 6, wherein the chemically amplified positive-working photosensitive resin composition is used in continuous plating steps of claims 7 and 8.